

STUDIES IN THE EUPATORIEAE (ASTERACEAE). CV.

A NEW GENUS, HETEROCONDYLUS.

R. M. King and H. Robinson  
Smithsonian Institution, Washington, D.C. 20560.

One rather large and diverse group of species in the Ayapanoid series of the Eupatorieae is easily distinguished by the somewhat distorted carpodium having porose thickened walls and having the basal tier of cells not more enlarged than the others. The species thus distinguished include a number of Brazilian species and also the very widely distributed Eupatorium vitalbae DC. In spite of many superficial differences, it has seemed best to place all the species in the single new genus, Heterocondylus, described here.

The genus Heterocondylus shows a number of extreme variations in habit including the slender nearly moncephalic microphyllous H. lysimachioides and the small long scapose forms like H. amphidictyus, H. pandurifolius, and H. pumilus. In most species the normal plants have alternate branching in the inflorescence, but this branching is usually opposite in two species, H. vautherianus and H. vitalbae. The latter character, which seems of little significance phylogenetically, is nevertheless very obvious and has resulted in an undue tendency to confuse the last two species. There is also a marked variation in phyllaries in the genus, being rather broad and subequal in H. grandis and H. vitalbae but in many unequal series in most other species.

Heterocondylus R.M.King & H.Robinson, genus novum Asteracearum (Eupatorieae). Plantae herbaceae vel suffrutescentes erectae vel subsclerentes paucè ramosae. Folia inferne opposita suprene plerumque alterna sessilia vel breviter petiolata, laminis ovatis vel anguste oblongis integris vel serratis. Inflorescentiae paucè vel multo ramosae paniculatae vel cymosae. Capitula magna; involucri squamae 15-30 imbricatae vel subimbricatae valde inaequilongae vel subaequilongae 3-5-seriatae oblongae vel lanceolatae; receptacula plana glabra. Flores 20-80 in capitulo; corollae anguste infundibulares 5-lobatae, lobis triangularibus, plerumque distincte longioribus quam latioribus, laevibus glabris vel paucè glanduliferis; filamenta

antherarum in parte superiore saepe incrassata, cellulis inferne subquadratis vel latioribus superne oblongis vel longioribus, parietibus annulate ornatis, appendicibus longioribus quam latioribus; styli inferne nodulosi glabri vel hirsuti, appendicibus late linearibus sublaevibus vel breviter papillosis; achaenia 5-costata setifera vel glandulifera, inferne attenuata; carpopodia distincta aliquantum inaequilateralia plerumque obturaculiformia, cellulis subquadratis multiseriatis, parietibus distincte incrassatis; pappus setiformis uniseriatus, setis 20-35 scabris ad apicem aequalibus vel leniter dilatatis, cellulis apicalibus acutis.

Species typica: Eupatorium vitalbae DC.

Our studies of the genus indicate that it contains the following 12 species.

Heterocondylus amphidictyus (A.P.Decandolle) R.M.King & H.Robinson, comb. nov. Eupatorium amphidictyum A.P.Decandolle, Prodr. 5: 168. 1836. Brazil.

Heterocondylus decipiens (Baker) R.M.King & H.Robinson, comb. nov. Eupatorium decipiens Baker in Mart. Fl. Bras. 6(2): 347. 1876. Brazil.

Heterocondylus grandis (Schultz-Bip. ex Baker) R.M.King & H.Robinson, comb. nov. Eupatorium grande Schultz-Bip. ex Baker, Mart. Fl. Bras. 6(2): 347. 1876. Brazil.

Heterocondylus itacolumiensis (Schultz-Bip. ex Baker) R.M.King & H.Robinson, comb. nov. Eupatorium itacolumiense Schultz-Bip. ex Baker, Mart. Fl. Bras. 6(2): 310. 1876. Brazil.

Heterocondylus jaraguensis (B.L.Robinson) R.M.King & H.Robinson, comb. nov. Eupatorium jaraguense B.L.Robinson, Contr. Gray Herb. n.s. 80: 23. 1928. Brazil.

Heterocondylus leptolepis (Baker) R.M.King & H.Robinson, comb. nov. Eupatorium leptolepis Baker, in Mart. Fl. Bras. 6(2): 359. 1876. Brazil.

Heterocondylus lysimachioides (Chod.) R.M.King & H.Robinson, comb. nov. Eupatorium lysimachioides Chod. Bull. Herb. Boiss. Ser. 2. 2:310. 1902. ("lysimachioide"). Paraguay.

Heterocondylus pandurifolius (Baker) R.M.King & H.Robinson, comb. nov. Eupatorium pandurifolium Baker, Mart. Fl. Bras. 6(2): 310. 1876. Brazil.

Heterocondylus pumilus (Gardn.) R.M.King & H.Robinson, comb. nov. Bulbostylis pumila Gardn., London J. Bot. 5: 470. 1846. Brazil.

Heterocondylus reitzii R.M.King & H.Robinson, sp. nov.

Plantae suffrutescentes erectae vel suberectae e basi ramosae. Caulis dense glanduliferi, glandibus longe pedicellatis. Folia opposita, petiolis brevibus anguste alatis, laminis late ovatis obtusis vel breviter acutis argute serratis basi rotundatis supra et subtus sparse glanduliferis. Inflorescentiae dense corymbosae. Capitula ca. 13 mm alta, ca. 15 mm lata, floribus ca. 65-70; involucri squamae ca. 40 valde inaequilongae 4-5-seriatae, usque ad 7 mm longae, ovatae vel anguste oblongae, breviter acutae, extus pilosae; corollae ca. 7 mm longae, lobis ca.  $1\frac{1}{2}$  longioribus quam latioribus glabris; appendices antherarum non longiores quam latiores; styli inferne valde nodulosi dense hirsuti; achaenia 5 mm longa, glandulifera, in costis breviter setifera; carpodia breviter late cylindrica. Pappi setae ca. 35 superne fere ad apicem aequales.

Type: BRAZIL: Santa Catarina: Morro do Iquererim, Campo Alegre, Alt. 1500 meters. 5.9.1957, Reitz & Klein 4785 (Holotype US!).

The species is closest to H. jaraguensis & H. itacolumiense but the upper leaves are not reduced and the stylar node is densely hirsute.

Heterocondylus vauthierianus (A.P.Decandolle) R.M.King & H.Robinson, comb. nov. Eupatorium vauthierianum A.P.Decandolle, Prodr. 5: 159. 1836. Brazil.

Heterocondylus vitalbis (A.P.Decandolle) R.M.King &

H. Robinson, comb. nov. Eupatorium vitalbae A.P.  
Decandolle, Prodr. 5: 163. 1836.

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